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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/685,463	TAKAHASHI, TETSU
Office Action Summary	Examiner	Art Unit	
	SEAN MOTSINGER	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *17 June 2009*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10 and 13* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-10 and 13* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Applicants Arguments/Amendments

Applicants Arguments/amendments filed on 6/17/2009 have been entered and made of record.

Applicants arguments on page 7 have been fully considered, the arguments address points that were resolved by amendments to the claims. However new rejections under 35 U.S.C. 112 are necessary in view of the amendments.

Regarding applicants arguments on page 6 regarding rejections under 35 U.S.C. 112. Applicants arguments have been fully considered but are not persuasive. The amendments to do not fully address the reasons for the rejection; such an embodiment is not disclosed in the specification and does not address the examiner concerns as confusing claim language.

Objections to the Specification

The amendment filed 6/17/2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the specifications as originally filed states that a frame is the same as a picture or a video pack for the purposes of the specification. Applicant has deleted words in an apparent attempt to

change this relationship and alter the meaning of words from the specification as

originally filed. This introduces new matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

Objections to the Claims

Claims 2 and objected to because of the following informalities: the word "setoff"

should read *set of.* Appropriate correction is required.

Rejections Under 35 U.S.C. 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2 and 7 rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the

invention.

Claim 2 and 7 state: "…the second frames which are discarded are intra coded pictures

or predictive-coded pictures contained in the input video sequence." However in

applicant's claim 1 this makes no sense for the reasons outlined in the rejection to claim

1 furthermore it is impossible to simply "discard" intra coded pictures in MPEG format in

the manner applicant claims.

Claims 1-10 and 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention.

    Claim 1 contains the language " skip each frame in the second set of frames

perform predictive coding of a corresponding frame of the first set of frames immediately

preceding a frame from the second set of frames wherein the discarded second set of

frames wherein the discarded second set of frames includes substantially the same

frame as the corresponding frame" This step is not described as being performed in the

specification, first it is unclear how a single frame contains the same information of the

entire second set, presumable applicant means "each discard frame" and "its

corresponding frame" since not all frames in the second set will have the same

corresponding frame. The sections cited by the applicant "page 11 line 27-page 16 line

8" while state that frames can more be discarded if they are encode with (exact not

substantially) the exact same data as previous frame. This however is in relation to

decoding wherein the frame rate is reduced (see page 12 lines 5-15 the frame rate is

reduced to 10 seconds) it does not disclose "perform predictive coding of a

corresponding frame of the first set of frames immediately preceding a frame from the

second set of frames wherein the discarded second set of frames wherein the discarded

second set of frames includes substantially the same frame as the corresponding

frame" which is claims about reencoding skipped frames as the data of the preceding

frame. This is not disclosed in the specification nor does it make any sense to redo

predictive coding of a previous frame when a frame which was the previous frame

Claims 14 and 6 contain similar problems as claim 1 The remaining claims

depend from these claims.

The specification further does not discloses "a current frame of the input video

sequence of the input video stequence is determined as whether the current frame is

positioned at the predetermined interval based on a count value and the count value is

reset when the current framed is determined to be positioned at the predetermined."

The section cited by applicant discloses counter but discloses counting "head end video

packs" which are different from frames. Furthermore the counter appears to be reset

only when "the target frame becomes the head end picture of the next GOP abd the

picture numer of the current GOP is changed" which does not make any sense but is

different then the claimed feature.

Claims 14 and 6 contain similar problems as claim 1 The remaining claims

depend from these claims.

Regarding claims 2 and 7 "the second set of frames includes at least one of intra

coded pictures and predictive coded pictures" This is not disclosed in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claim 1-10 and 14 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

Acoording to applicants arguments the input of claim 1 (and 13) is the MPEG

format see Applicants remarks filed on 10/6/2008 page 5 "input into the mpeg encoder

includes data in the MPEG format. In claim 1 there is claimed "A second unit discarding

a second set of frames which lie between two of the first set of frames in the input video

sequence, to cause the encoding unit to skip each second frame and perform

predictive coding of a corresponding one of the first frames immediately preceding the

second frame." This describes taking the input video sequence and encoding the

second set of frames as a "predictive coding of a corresponding one of the first frames

immediately preceding the second frame". This operation is not enabled with respect to

an MPEG input as described, one cannot merely discard the MPEG pictures without

ruining the encoding scheme see applicants specification paragraph 77 as published.

"The encodined data of the fourth picture B inherently cannot be decoded with no

reference to the third picture preceding the fouth picture B". Therefore a normal MPEG

stream could not function be discarding unless as stated in the specification paragraph

77 *"all of the preceding pictures(the first through third pictures are encoded from the*

same picture A". This would not be true unless the MPEG sequence was already

encoded such that " encoding unit to skip each second frame and perform predictive

coding of a corresponding one of the first frames immediately preceding the second

frame." This would mean the applicant was discarding "predictive coding of a

corresponding one of the first frames immediately preceding the second frame" frames

then inserting "predictive coding of a corresponding one of the first frames immediately

preceding the second frame" to end up with the same coding sequence that applicant

started with which makes no sense. *The combination of steps of "leaving a first set of*

frames to cause encoding unit to perform predictive coding of the first set of frames" and

""predictive coding of a corresponding one of the first frames immediately preceding the

second frame" does not make any sense when the input is an MPEG video stream and

appears to only be relevant to an input of an un-encoded video stream.

Claim 2 and 7 state: "…the second frames which are discarded are intra coded pictures

or predictive-coded pictures contained in the input video sequence." However in

applicant's claim 1 this makes no sense for the reasons outlined in the rejection to claim

1 furthermore it is impossible to "discard" intra coded pictures in MPEG format.

Rejections Under 35 U.S.C. 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by

Sackstein et al. WO 98/45959 in view of Drawert US 5,111,490

Re claim 1, Sackstein discloses an image compression device comprising: an encoding

unit performing predictive coding of an input video sequence having a plurality of

frames. (See Page 3 15-20.) Note a MPEG encoder is used here. A first unit leaving a

first set of frames (see page 3 line 8-10 the first set is the set selected by sub sampling)

at predetermined intervals (i.e. predetermined duty cycle in page 3 line 12) in the input

video sequence(i.e. video signal page 3 line 11) to cause the encoding unit (page 3 line

13) to perform predictive coding (page 3 line 16 IP encoding is predictive) of the first

frames. Note the system is sub-sampled and the sub-sampled signal is compressed

therefore a set of frames occurring at predetermined intervals is chosen by a unit, for

the purpose of predictive MPEG coding. A second unit discarding a second set of

frames (see page 3 line 8-10, the second set is the set not selected by sub sampling),

which lie between two of the first set of frames (page 3 line 11, sub sampling implies

this) in the input video sequence(i.e. video signal page 3 line 11), to cause the

encoding unit (page 3 line 13) to skip each second frame (page 3 line 8-10, sub

sampling implies this) and perform predictive coding (page 3 line 16 IP encoding is

predictive) of a corresponding one of the first frames immediately preceding the second

frame (page 3 lines 17-20). Note in the removed frames are replaced by P-frames which

denote that all information is contained in the previous frame (predictive coding of a

corresponding one of the first frames immediately preceding the second frame). An

output unit (see page 5 lines 20-27 note the compressed data is stored so it must be

outputted by an output unit) outputting only encoded data (page 5 line 27 MPEG video

is encoded data) of the first set of frames created by the encoding unit in association

with the first unit as a result of the predictive coding of the entire input video sequence

(i.e. complete frame set page 3 line 23). Thereby reducing the number of frames

originally contained in the input sequence prior to compression (subsampling page 3

line 11 subsampling prior to compression reduces the number of input frames prior to

compression.

Sackstien discloses keeping every other frame and discarding the remaining frames. It

does not expressly disclose a current frame of the input video sequence is determined

as whether the current frame is positioned at the predetermined interval based on a

count value and the count value is reset when the current frame is determined to be

positioned at the predetermined value. However using a counter to select every Nth

thing is notoriously well known in computer programming and "a current frame of the

input video sequence is determined as whether the current frame is positioned at the predetermined interval based on a count value and the count value is reset when the current frame is determined to be positioned at the predetermined value is disclosed by Drawert in (column 3 lines 60-68). Using such a method to select every nth frame is would be well within the skill of one in the art the results (selecting every nth frame would be predictable. Therefore it would have been obvious to coming Darwert with Sackstien and the results would be predictable.

Re claim 2 Sackstein further discloses wherein the first frames that are left are either intra-coded pictures (I-frame) or predictive-coded pictures (P-frame) (i.e. IP encoding) contained in the input video sequence (see Page 3 lines 16 and figure 1 element 50A.) The second set of frames (not selected by the sub sampling see page 3 lines 11-12), which are discarded, are pictures contained in the input video sequence (ie video signal see page 3 line 11).

Re claim 3 Sackstein further discloses wherein the encoded data of the first frames created by the encoding unit is stored in a storage device (ie. Storage area page 5 line 27) having a predetermined storage capacity (All storage devices have a predetermined capacity) as a result of the predictive coding of the entire input video sequence (i.e. complete frame set see page 3 line 23).

Re claim 4 Sackstein further discloses wherein the encoding unit (encoder 304 figure 3

page 19 line 15), the first unit, the second unit (controller 310 of figure 3 page 19 line 16

these two units are combined in the controller) and the output unit (multiplexer 312

figure 3 page 19 lines 16-17) are arranged in an MPEG2 (see page 1 line 19) encoder

(encoding unit 300 figure 3 page 19 line 14) .

Re claim 5 Sackstein discloses wherein the encoding unit (elementary stream encoder

502 figure 6 page 21 line 23-24) and the output unit (multiplexer 506 figure 6 page 21

line 23-24) are arranged in an MPEG2 (see page 1 line 19), encoder (elements 502

and 506 page 21 line 23-24) and the first unit and the second unit are arranged in an

external control unit (controller 504 figure 6 page 21 line 23-24)   connected to the

MPEG2 encoder.

Re claim 6 Sackstein discloses an image compression method comprising the steps of:

leaving first set of frames (i.e. the frames selected by sub sampling, page 3 line11) at

predetermined intervals (i.e. predetermined dutcy cycle page 3 line 12) in an input video

sequence (video signal page 3 line 11) having a plurality of frames (this is inherent in

video) to cause an encoding unit (page 3 line 13) to perform predictive coding (page 3

line 16 IP coding is predictive) of the first set of frames. Said encoding unit performing

predictive coding of the input video sequence (See Page 3 lines 15-20.) Discarding a

second set of frames (i.e. the frames no selected by sub sampling, page 3 line11),

which lie between two frames in the first set of frames (page 3 line 8-10, sub sampling

implies this) in the input video sequence, to cause the encoding unit to skip each

second frame (i.e. some of the frames are not compressed page 3 lines 9-10) and

perform predictive coding of a corresponding one of the first frames immediately

preceding the second frame (note in page 3 lines 17-20 the removed frames are

replaced by P-frames which denote that all information is contained in the previous

frame (predictive coding of a corresponding one of the first frames immediately

preceding the second frame)). Outputting (see page 5 lines 20-27, the data is stored

somewhere so it must be outputted) only encoded data of the first set of frames (i.e.

only the compressed frames page 3 lines 9-10) created by the encoding unit in

association with the leaving step (subsampling page 3 line 11) as a result of the

predictive coding (IP coding page 3 line 16) of the entire input video sequence.

Sackstien discloses keeping every other frame and discarding the remaining frames. It

does not expressly disclose a current frame of the input video sequence is determined

as whether the current frame is positioned at the predetermined interval based on a

count value and the count value is reset when the current frame is determined to be

positioned at the predetermined value. However using a counter to select every Nth

thing is notoriously well known in computer programming and "a current frame of the

input video sequence is determined as whether the current frame is positioned at the

predetermined interval based on a count value and the count value is reset when the

current frame is determined to be positioned at the predetermined value is disclosed by

Drawert in (column 3 lines 60-68). Using such a method to select every nth frame is

would be well within the skill of one in the art the results (selecting every nth frame

would be predictable. Therefore it would have been obvious to coming Darwert with

Sackstien and the results would be predictable.

Re claim 7 Sackstein further discloses wherein the first frames that are left are either

intra-coded pictures (I-frame) or predictive-coded pictures (P-frame) (i.e. IP encoding)

contained in the input video sequence (see Page 3 lines 16 and figure 1 element 50A.)

The second set of frames (not selected by the sub sampling see page 3 lines 11-12),

which are discarded, are pictures contained in the input video sequence (ie video signal

see page 3 line 11).

Re claim 8 Sackstein further discloses wherein the encoded data of the first frames

created by the encoding unit is stored in a storage device (ie. Storage area page 5 line

27) having a predetermined storage capacity (All storage devices have a predetermined

capacity) as a result of the predictive coding of the entire input video sequence (i.e.

complete frame set see page 3 line 23).

Re claim 9 wherein the encoding unit (encoder 304 figure 3 page 19 line 15) is arranged

in an MPEG2 (page 1 line 19) encoder (encoding unit 300 figure 3 page 19 line 14), and

the MPEG2 encoder performs the predictive coding (preformed by encoder 304 figure 3

page 19 line 15), the leaving step, the discarding step (preformed by the controller 310

figure 3 page 19 line 16), and the outputting step (multiplexer 312 figure 3 page 19 lines 16-17).

Re claim 10 Sackstein further discloses wherein the encoding unit (elementary stream encoder 502 figure 6 page 21 line 23-24) is arranged in an MPEG2 encoder so that the MPEG2 (page 1 line 19) encoder (elements 502 and 506 page 21 line 23-24) performs the predictive coding and the outputting step (multiplexer 506 figure 6 page 21 line 23-24), and an external control unit connected to the MPEG2 encoder is arranged so that the external control unit (see figure 6 element 504 page 21 lines 23-24) performs the leaving step and the discarding step.

Re claim 14 Sackstien discloses device comprising: a first unit capable of leaving a first set of frames at intervals in a sequence(see page 3 line 8-10 the first set is the set selected by sub sampling); A second unit discarding a second set of frames (see page 3 line 8-10, the second set is the set not selected by sub sampling), to cause an encoding unit (page 3 line 13) to skip each second frame (page 3 line 8-10, sub sampling implies this) and perform predictive coding (page 3 line 16 IP encoding is predictive) of a corresponding one of the first frames immediately preceding the second frame wherein the discarded ferames contain substantially a same frame as the previous frame (page 3 lines 17-20). Note in the removed frames are replaced by P-frames which denote that all information is contained in the previous frame (predictive coding of a corresponding one of the first frames immediately preceding the second frame).

Sackstien discloses keeping every other frame and discarding the remaining frames. It does not expressly disclose a current frame of the input video sequence is determined as whether the current frame is positioned at the predetermined interval based on a count value and the count value is reset when the current frame is determined to be positioned at the predetermined value. However using a counter to select every Nth thing is notoriously well known in computer programming and "a current frame of the input video sequence is determined as whether the current frame is positioned at the predetermined interval based on a count value and the count value is reset when the current frame is determined to be positioned at the predetermined value is disclosed by Drawert in (column 3 lines 60-68). Using such a method to select every nth frame is would be well within the skill of one in the art the results (selecting every nth frame would be predictable. Therefore it would have been obvious to coming Darwert with Sackstien and the results would be predictable.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SEAN MOTSINGER whose telephone number is

(571)270-1237. The examiner can normally be reached on 9-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bhavesh M Mehta/
Supervisory Patent Examiner, Art Unit 2624

Motsinger
9/25/2009